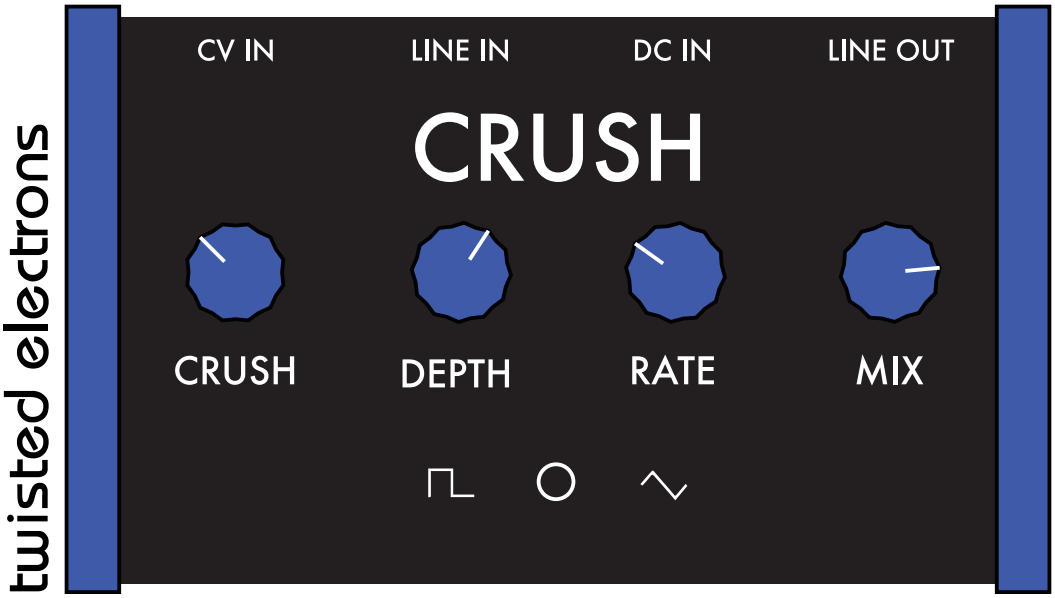


User Manual

twisted electrons

Thanks! ... Features

Thank-you for choosing crush!

Crush can reveal interesting textures surprisingly rich in character and harmonics by lowering the sample rate and resolution of you sound.

Wikipedia Bit-Crushing page

You can adjust the amount of distortion manually with the **Crush knob**, and/or add some modulation with the dual-shape **LFO**.

The ***Ghost Knob*** feature allows to record and play back Crush knob movements by a simple press of a button! (explained in Chapter 3)

You can also control Crush externally via its **CV input.**

1- Connectivity

1/8” audio mono input (LINE IN)

Crush has a built-in pre-amp circuit and is suitable for low level signals like electric guitars etc.

If necessary the DC bias can be adjusted via the hole underneath the unit.

1/8” audio mono output (LINE OUT)

The Crushed signal can be passively mixed with the input via the **Mix Knob.**

1/8” CV modulation (CV IN)

You can modulate the amount of Crush via external control voltages (for example: eurorack ADSR, LFO modules etc).

Crush responds to DC 0-5V but is protected against over-voltage via Zener diodes.

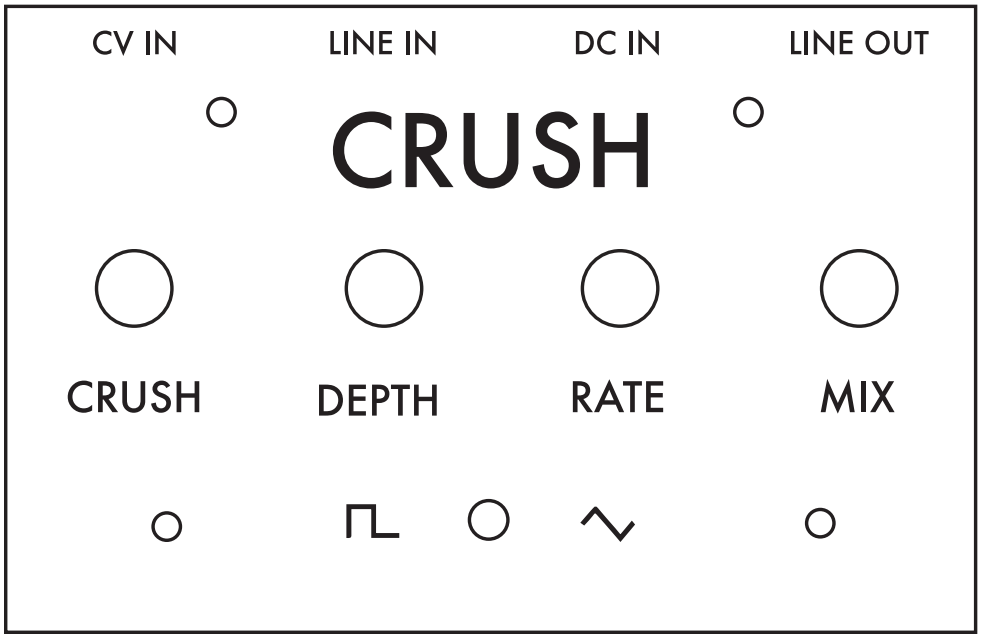
Note: CV modulation is additive to the amount of distortion set by the Crush knob and LFO. In other words if you wish to modulate the amount of crush over the full range, Crush and Depth knobs must be set to zero.

Power Supply Input (DC IN)

It is recommended to use the included power supply.
Crush requires 8-15v via standard 5.5mm x 2.1mm plug.

Warning: Power supply must be center positive!!!

twisted electrons



2- Controls

Crush: Controls the amount of crush aka signal distortion.

Depth: Controls the amount of lfo modulation. The Depth knob also controls the depth of the ***Ghost Knob*** playback (explained in Chapter 3).

Rate: Controls the speed of lfo modulation. The Speed knob also controls the playback rate of the ***Ghost Knob*** (explained in Chapter 3).

Mix: Controls the balance between clean and crushed signals.
Clockwise rotation adds distortion.

Waveform/Ghost Knob Button: The single button has two functions:

LFO Waveform select: a quick single press toggles between Triangle and Square waveforms (indicated by back-lit icons).

Ghost knob: Hold to activate ***Ghost Knob*** (explained in Chapter 3).

3- Ghost Knob

The ***Ghost Knob*** feature allows you to record and play back your own Crush knob movements. The LFO rate and depth knobs can then be used to speed up, slow down and attenuate the ***Ghost Knob*** playback.

Activate - Record:

Press and Hold the button to begin recording the knob movements.

Both icons will flash at this point, indicating that record is in progress.

Playback:

Playback loop begins as soon as you release the button.

The **Rate** and **Depth** knobs now affect the Speed and Depth of your recorded movements.

4- Have Fun!

Crush too cold?... PHIL

twisted electrons